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From the INTERNATIONAL BUREAU To: **PCT Assistant Commissioner for Patents** NOTIFICATION OF ELECTION **United States Patent and Trademark** Office (PCT Rule 61.2) **Box PCT** Washington, D.C.20231 **ETATS-UNIS D'AMERIQUE** Date of mailing (day/month/year) in its capacity as elected Office 18 September 2000 (18.09.00) Applicant's or agent's file reference International application No. PF-0622 PCT PCT/US99/25820 Priority date (day/month/year) International filing date (day/month/year) 03 November 1998 (03.11.98) 03 November 1999 (03.11.99) **Applicant** TANG, Y., Tom et al 1. The designated Office is hereby notified of its election made: in the demand filed with the International Preliminary Examining Authority on: 01 June 2000 (01.06.00) in a notice effecting later election filed with the International Bureau on: 2. The election was not made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland **Authorized officer**

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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent	Classification 7:		(11) International Publication Number:	WO 00/26350
C12N 9/00		A2	(43) International Publication Date:	11 May 2000 (11.05.00)
(21) International Application Number: PCT/US99/25820 (22) International Filing Date: 3 November 1999 (03.11.99)			95006 (US). AZIMZAI, Yalda [US/US]; 2045 Rock Springs		
(30) Priority Data: 09/185,217 Not furnished	3 November 1998 (03.11.98 3 November 1998 (03.11.98	,	JS JS	YUE, Henry [US/US]; 826 Lois 94087 (US). (74) Agents: BILLINGS, Lucy, J. et al Inc., 3174 Porter Drive, Palo Alt	.; Incyte Pharmaceuticals,
(CIP) to Earlier A US Filed on US Filed on (71) Applicant (for all delivery)	09/185,3 3 November 1998 (Not furnish 3 November 1998 (esignated States except US): CALS, INC. [US/US]; 3174 Por	217 (CI 03.11.9 hed (CI 03.11.9	(P) (98) (P) (98) (FE)	(81) Designated States: AL, AM, AT, ABY, CA, CH, CN, CU, CZ, DE, GE, GH, GM, HR, HU, ID, IL, KR, KZ, LC, LK, LR, LS, LT, MN, MW, MX, NO, NZ, PL, PT SK, SL, TJ, TM, TR, TT, UA, UARIPO patent (GH, GM, KE, LUG, ZW), Eurasian patent (AM RU, TJ, TM), European patent (AES, FI, FR, GB, GR, IE, IT, LU patent (BF, BJ, CF, CG, CI, CM NE, SN, TD, TG).	DK, EE, ES, FI, GB, GD, IN, IS, JP, KE, KG, KP, LU, LV, MD, MG, MK, RO, RU, SD, SE, SG, SI, IG, US, UZ, VN, YU, ZW, S, MW, SD, SL, SZ, TZ, AZ, BY, KG, KZ, MD, AT, BE, CH, CY, DE, DK, MC, NL, PT, SE), OAPI
4230 Ranwick Co Neil, C. [US/US]; CA 94040 (US).	e(for US only): TANG, Y., Tom urt, San Jose, CA 95118 (US). O 1240 Dale Avenue. #30, Mount GUEGLER, Karl, J. [CH/U Menlo Park, CA 94025 (US). GO	CORLE ain Vie S]; 10	Y, w, 148	Published Without international search repute the search repute the search report.	port and to be republished
(54) Title: COENZYME	A-UTILIZING ENZYMES				

(57) Abstract

The invention provides human coenzyme A-utilizing enzymes (CoAEN) and polynucleotides which identify and encode CoAEN. The invention also provides expression vectors, host cells, antibodies, agonists and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of CoAEN.

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INTERNATIONAL SEARCH REPORT



ernational Application No

PCT/US 99/25820 A CLASSIFICATION OF SUBJECT MATTER IPC 7 C12N9/00 C12N C12N15/52 C07K16/40 A61K38/43 According to International Patent Classification (IPC) or to both national classification and IPC B. FIFLDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 C12N C07K A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. J WEST ET AL: "Cloning and expression of 1 - 16, 19A two human lysophosphatidic acid acyltransferase cDNAs that enhance cytokine induced signaling responses in cells" DNA AND CELL BIOLOGY, US, NEW YORK, NY, vol. 16, no. 6, 1 June 1997 (1997-06-01), pages 691-701, XP002082603 ISSN: 1044-5498 cited in the application the whole document -/--Patent family members are listed in annex. Further documents are listed in the continuation of box C. Opecial categories of cited documents: "I later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not considered to be of particular relevance cited to understand the principle or theory underlying the "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone °L° document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. *P* document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 7 July 2000 02 OCT 2000 Name and mailing address of the ISA **Authorized officer** European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

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Kaas, V

INTERNATIONAL SEARCH REPORT

emational Application No PCT/US 99/25820

		PC1/03 99/23828
	tion) DOCUMENTS CONSIDERED TO BE RELEVANT	18
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	STAMPS, A. ET AL.: "A human cDNA sequence with homology to non-mammalian lysophosphatidic acid acyltransferases" BIOCHEMICAL JOURNAL, vol. 326, 1 September 1997 (1997-09-01), pages 455-461, XP000916280 cited in the application the whole document	1-16,19
A	WO 94 09126 A (DARTMOUTH COLLEGE) 28 April 1994 (1994-04-28) the whole document	1-16,19
A	US 5 635 616 A (COLEMAN TIMOTHY A ET AL) 3 June 1997 (1997-06-03) the whole document	1-16,19
1	·	
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INTERNATIONAL SEARCH REPORT

Information on patent family members

ternational Application No PCT/US 99/25820

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
WO 9409126	28-04-1994	US 5484727 A AU 5356694 A US 5968749 A US 5834283 A	16-01-1996 09-05-1994 19-10-1999 10-11-1998	
US 5635616	03-06-1997	NONE		

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference FOR FURTHER see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.					
PF-0622 PCT International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)			
••					
PCT/US 99/25820	03/11/1999	03/11/1998			
Applicant					
INCYTE PHARMACEUTICALS, II	NC. et al.				
This International Search Report has bee according to Article 18. A copy is being tra	n prepared by this International Searching Auth ansmitted to the International Bureau.	ority and is transmitted to the applicant			
This International Search Report consists It is also accompanied by	of a total of sheets. a copy of each prior art document cited in this	report.			
	international search was carried out on the bas	is of the international application in the			
_	less otherwise indicated under this item.	ne international application furnished to this			
the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)). b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search					
was carried out on the basis of th	e sequence listing :				
	onal application in written form. ernational application in computer readable forn	•			
l H	o this Authority in written form.				
	o this Authority in computer readble form.				
the statement that the su	bsequently furnished written sequence listing d	oes not go beyond the disclosure in the			
l ''	international application as filed has been furnished.				
furnished	omation recorded in computer readable form is	reclined to the whiten sequence listing has been			
2. X Certain claims were fou	and unsearchable (See Box I).				
3. X Unity of invention is lacking (see Box II).					
4. With regard to the title ,					
	ubmitted by the applicant.				
the text has been established by this Authority to read as follows:					
5. With regard to the abstract,					
1	ubmitted by the applicant.	·			
the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.					
6. The figure of the drawings to be pub	lished with the abstract is Figure No.				
as suggested by the app	icant.	X None of the figures.			
because the applicant fai	because the applicant failed to suggest a figure.				
because this figure bette	r characterizes the invention.	·			

International application No. PCT/US 99/25820

INTERNATIONAL SEARCH REPORT

Box I	Observations where certain claims were found unsearchable (Continuation of it m 1 of first sheet)
This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. χ	Claims Nos.: - because they relate to subject matter not required to be searched by this Authority, namely:
	see FURTHER INFORMATION sheet PCT/ISA/210
2. X	Claims Nos.: 17, 18, 20 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
	see FURTHER INFORMATION sheet PCT/ISA/210
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This Int	ternational Searching Authority found multiple inventions in this international application, as follows:
	See additional sheet
1.	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. X	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1 - 20 (partially)
Remai	rk on Protest
	No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

3

Although claims 19 and 20 are directed to a method of treatment of the human/animal body, the search on claim 19 has been carried out and based on the alleged effects of the compound/composition (concerning claim 20, see below).

Continuation of Box I.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

Continuation of Box I.2

Claims Nos.: 17,18, 20

It is not possible to carry out a meaningful search into the state of the art on the basis of claims 17 and 18 because their subject-matter ("agonist" and "antagonist") is structurally undefined and could not in any event have been functionally tested in the prior art. The same is true for claim 20 which refers to a method using the undefined subject-matter mentioned above.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

3

- Claims: 1-20 (partially)
 subject-matter relating to SEQ ID NO: 1 and 6
- 2. Claims: 1-20 (partially)
 subject-matter relating to SEQ ID NO: 2 and 7
- 3. Claims: 1-20 (partially)
 subject-matter relating to SEQ ID NO: 3 and 8
- 4. Claims: 1-20 (partially) subject-matter relating to SEQ ID NO: 4 and 9
- 5. Claims: 1-20 (partially) subject-matter relating to SEQ ID NO: 5 and 10